



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,466	12/15/2003	Allan Wesley Rosenbalm	16230-US	3465

7590 11/02/2004

Jimme R. Oaks
Patent Department
DEERE & COMPANY
One John Deere Place
Moline, IL 61265-8098

EXAMINER

TORRES, ALICIA M

ART UNIT	PAPER NUMBER
----------	--------------

3671

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,466

Applicant(s)

ROSENBALM ET AL. 

Examiner

Alicia M Torres

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 4, 5, 7-9 and 14 is/are rejected.
7) ☒ Claim(s) 3, 6, 10-13 and 15-20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 7-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenbalm et al., hereafter Rosenbalm, in view of Scarnato et al., hereafter Scarnato.

3. In regard to claims 1, 2, 4, 5 and 7-9, Rosenbalm discloses in combination with a mowing implement including a rotary disc cutter bar (30) extending transversely to a direction of travel during mowing operation and including transversely spaced, knife-carrying rotary discs (40, 42, 44), structure (108, 110, 112) aiding in converging cut crop toward a discharge zone located behind the cutter (30), comprising: at least one converging drum (108) mounted having an upright axis of rotation located behind a line of centers of said cutter bar (30) and being located upstream relative to crop movement toward said discharge zone and adjacent at least one of said rotary discs (40), as per claim 1; and

Wherein the at least one of the rotary discs (40) is an end rotary disc, as per claim 4; and

Wherein the structure (108, 110, 112) aiding in converging cut crop further includes a second converging drum (108) mounted to a top of, and for rotation with, said end rotary disc (40), as per claim 5; and

wherein said structure aiding in the delivery of crop includes at least a second converging drum (110), identical to said at least one converging drum (108), mounted for rotation about a

Art Unit: 3671

second upright axis located behind and downstream from said upright axis of rotation of said at least one converging drum (108), as per claim 9.

However, Rosenbalm fails to disclose said at least one converging drum having a lower end including an outer peripheral edge located a first distance above a path followed by knife blades carried by said at least one of said rotary discs an inner region surrounding said upright axis and located a second distance, which is greater than said first distance, above said path, thereby creating a relief area beneath said at least one converging drum, as per claim 1; and

wherein said lower end of said at least one converging drum includes a top surface which is inclined upwardly and inwardly toward said upright axis of rotation of the converging drum, whereby crop engaging said lower end is lifted, as per claim 2; and

wherein the lower end of the at least one converging drum is in the shape of an inverted bowl, as per claim 7; and

wherein the surface of the at least one converging drum is conical, as per claim 8.

Scarnato discloses a similar device wherein said at least one converging drum (36) has a lower end (47) including an outer peripheral edge located a first distance above a path followed by knife blades (49) carried by said at least one of said rotary discs an inner region surrounding said upright axis and located a second distance, which is greater than said first distance, above said path, thereby creating a relief area beneath said at least one converging drum (36), as per claim 1; and

wherein said lower end of said at least one converging drum (36) includes a top surface which is inclined upwardly and inwardly toward said upright axis of rotation of the converging drum (36), whereby crop engaging said lower end is lifted, as per claim 2; and

Art Unit: 3671

wherein the lower end (47) of the at least one converging drum (36) is in the shape of an inverted bowl, as per claim 7; and

wherein the surface of the at least one converging drum (36) is conical, as per claim 8.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the lower end of the converging drum of Scarnato on the device of Rosenbalm in order to shred crop material.

4. In regards to claim 14, Rosenbalm discloses in combination with a mowing implement including a rotary disc cutter bar (30) extending transversely to a direction of travel during mowing operation and including transversely spaced, knife-carrying rotary discs (40, 42, 44), structure (108, 110, 112) aiding in converging cut crop toward a discharge zone located behind the cutter (30), comprising: at least one converging drum (108) mounted having an upright axis of rotation located behind a line of centers of said cutter bar (30) and being located upstream relative to crop movement toward said discharge zone and adjacent at least one of said rotary discs (40, 42, 44) so that knives carried by the at least one of the rotary discs (108, 110, 112) sweeps a path beneath said at least one converging drum (108), as per claim 14.

However, Rosenbalm fails to disclose wherein the at least one converging drum having a lower end including an upper surface inclined upwardly toward the upright axis and including a lower surface having, relative to the axis of rotation, a central region located above the path by a distance greater than a peripheral region, thereby creating a relief area beneath the at least one converging drum.

Art Unit: 3671

Scarnato discloses a similar device wherein the at least one converging drum (36) has a lower end (47) including an upper surface inclined upwardly toward the upright axis and including a lower surface having, relative to the axis of rotation, a central region located above the path by a distance greater than a peripheral region, thereby creating a relief area beneath the at least one converging drum (36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the lower end of the converging drum of Scarnato on the device of Rosenbalm in order to shred crop material.

Allowable Subject Matter

5. Claims 3, 6, 10-13 and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 2, 4, 5, 7-9 and 14 have been considered but are moot in view of the new ground(s) of rejection.

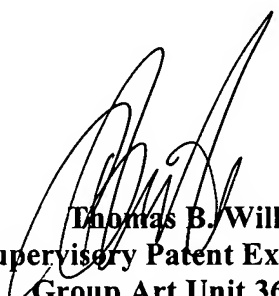
Art Unit: 3671

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.



Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671

AMT
October 29, 2004